## A New Combination and a New Synonym in Vigna (Fabaceae: Phaseoleae) for the Flora de Nicaragua

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ABSTRACT. A survey of all available material demonstrates conclusively that *Phaseolus spectabilis* is clearly a *Vigna*, and thus the new combination *Vigna spectabilis* (Standley) A. Delgado is proposed. This species is placed next to *V. linearis* in the New World subgenus *Sigmoidotropis*, section *Caracallae*. In addition, *Phaseolus stenolobus* is reduced to the synonymy of *Vigna linearis* var. *latifolia* (Bentham) Maréchal.

While preparing treatments of *Phaseolus* L. and *Vigna* Savi for the *Flora de Nicaragua*, and as part of a monographic project involving *Vigna*, I have encountered several specimens that are identified as *Phaseolus spectabilis*, using Standley and Steyermark's (1946) *Flora of Guatemala*. Because this species lacks apomorphies diagnostic of *Phaseolus* (i.e., hooked hairs in its indumentum, inflorescences with unswollen nodes, a tightly coiled lateral keel) and has those diagnostic of New World species of *Vigna* subg. *Sigmoidotropis*, sect. *Caracallae* sensu Maréchal et al. (1978) (i.e., inflorescences with conspicuous swollen nodes, a loosely coiled keel, pods straight and compressed), the necessary new combination is made here.

Vigna spectabilis (Standley) A. Delgado, comb. nov. Basionym: Phaseolus spectabilis Standley, Contr. U.S. Natl. Herb. 17: 430, plate 25. 1914. TYPE: Guatemala. Alta Verapaz: vicinity of Secanquím, 550 m, 7 May 1905, H. Pittier 281 (holotype, US).

Along with the publication of *Phaseolus spectabilis*, Standley (1914) published the morphologically similar species *P. stenolobus*. This plant inhabits mainly montane forests from Mexico to Panama (occasionally also in South America), and may occur in localities next to the ones of *Vigna spectabilis*. The characters Standley used to distinguish these plants are that *P. stenolobus* has narrower calyx lobes and bracts, and a different pubescence on its leaflets. According to Maréchal et al. (1978), *Phaseolus stenolobus* may be recognized as *Vigna linearis* var. *latifolia*, a

poorly defined variety that is distinguished from the widespread typical variety by its broader leaflets. All evidence suggests that *P. stenolobus* cannot be kept specifically distinct, and its proposed synonymy is the following:

Vigna linearis var. latifolia (Bentham) Maréchal, Mascherpa & Stainier, Taxon 27: 202. 1978. Phaseolus linearis var. latifolius Bentham, in Martius, Fl. Bras. 15(1): 187. 1859. TYPE: Brazil. [Minas Gerais]: "Prov. Minarum," A. F. Regnell [78] (holotype, K not seen; phototype, NY).

Phaseolus stenolobus Standley, Contr. U.S. Natl. Herb. 17: 431. 1914. Syn. nov. TYPE: Guatemala. Santa Rosa: Cerro Redondo, 1500 m, Oct. 1983, J. D. Smith 6135 (holotype, US).

Vigna spectabilis is easily distinguished from V. linearis (including P. stenolobus) by its large foliaceous lateral and ventral calyx lobes (ca. 1.2 cm long, 3 mm wide), as opposed to the triangular and slightly falcate lobes (ca. 6 mm long, 1 mm wide) in V. linearis. It also differs by its blue or lavender flower (ca. 3 cm), with the keel incurved and loosely coiled distally (with coils ca. 8 mm diam.); this portion of the keel rotates in anthesis toward the front (facing the observer). In V. linearis, the flower is approximately 2 cm long, and its keel has two loosely coils about 4 mm in diameter, also with a rotation toward the front. Further, V. spectabilis has triporate pollen grains that are oblate, unlike the unique subprolate and biporate pollen of V. linearis (Stainier & Horvat, 1983).

Vigna spectabilis occurs in understory or grassy openings of evergreen, pine-oak, and pine forests or vegetation derived from these, in southern Mexico (Oaxaca, Chiapas), Belize, Guatemala, Honduras, Nicaragua, and Costa Rica, ranging from 150 to 2000 m.

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## Literature Cited

- Maréchal, R., J.-M. Mascherpa & F. Stainier. 1978. Étude taxonomique d'un groupe complexe d'espèces de genres *Phaseolus* et *Vigna* (Papilionaceae) sur la base de données morphologiques et polliniques, traitées par l'analyse informatique. Boissiera 28: 1–273.
- Stainier, F. & F. Horvat. 1978. L'étude de l'exine dans le complexe *Phaseolus-Vigna* et dans genres apparentés. V. Le sous-genre *Sigmoidotropis* (Piper) Verdcourt et *Ramirezella strobilophora* (Robinson) Rose. Pollen & Spores 25: 5–40.
- Standley, P. C. 1914. Studies of tropical American phanerogams—No. 1. Contr. U.S. Natl. Herb. 17: 427–458.
- —— & J. A. Steyermark. 1946. Flora of Guatemala. Part V. Fieldiana: Botany 24: 1–502.